

Memorandum

Date: November 27, 2002

To: Management Agencies

From: Project Agencies
Department of Water Resources

Subject: **Fish Action #2-02: November 10 through November 26, 2001**

Background

Concerns arose about the availability of cold water at Folsom Reservoir. Water temperatures in the lower American River were still high and the possibility existed that the temperatures would not decrease to 60° (which is the Chinook salmon spawning criteria) prior to mid to late November.

A California Department of Fish and Game representative reported on November 8, 2001 to the American River Operations Work Group that a large run of Fall-run sized Chinook salmon were holding in the lower American River. Also, a significant number of pre-spawned salmon carcasses (about 900) were found in the escapement surveys due to high water temperatures (in excess of 64°F). The possibility of fungus growth on the eggs existed.

The temperature shutters (power generation penstock inlet ports) at Folsom Dam under normal conditions are used to manage the reservoir's cold water pool to provide suitable water temperatures for over-summering juvenile steelhead and spawning salmon. Temperature compliance is required below Nimbus Dam to protect over summering juvenile steelhead (NMFS – OCAP biological opinion). The only way to accessing the cold water pool once it is below the shutters is through Folsom Dam's lower river outlets. By early November, the cold water pool was below the shutters. Releasing water through the lower river outlets bypasses the generation units; thereby reducing the amount of power that otherwise would have been generated from the reservoir.

A proposal by the AROG to the EWA Agencies was made to use available EWA power credits to compensate Western Area Power Administration for the loss of generation resulting from implementation of the Folsom bypass operation which reduced the water temperature in the river. These power credits were gained from earlier export curtailments covered by the EWA.

Description of Action

Between November 10 and 26, 2001, a power generation bypass occurred at Folsom Dam. The combination of powerhouse and lower river outlet releases into Lake Natoma ranged between 988 cfs and 1,032 cfs. Of that, releases from the lower river outlets ranged between 352 cfs and 522 cfs. These flows were maintained in order to provide some spawning habitat and sufficient flows over salmon redds during the egg incubation period. The temperature of the water released through the lower river outlets was approximately 50°F. The combined release temperature dropped by 6°F on November 10, 2001 when the water from the lower river outlets was blended with the warmer water from the powerhouse. By November 13, 2001, the water temperature at Nimbus Dam had reached 60°F.

The power generation bypass improved salmon spawning conditions downstream of Nimbus Dam within a few days and approximately nine days earlier than what would have happened without the bypass. The CDFG reported that spawning was initiated once the temperature was at or below 60°F. (Reference: Report On The Action To Use Cold Water For Salmonid Resources In The Lower American River By Bypassing Power Generation At Folsom Lake During November 2001, prepared by the Lower American River Operations Group – March 7, 2002.)

Estimated Cost Of Action

The amount of CVP water bypassed was 17,103 acre-feet. Replacement power for this lost generation was provided to the CVP at the Tracy Pumping Plant between November 22 and 30, 2001 in the amount of 4,276 MWH. This quantity was provided based on available existing EWA power credits. EWA water was not used in this action.


Method Of Accounting For Costs

DWR will provide to the Management Agencies an accounting of the actual power costs associated with this EWA action in a future settlement of all EWA costs and credits.


Disagreements regarding the analysis are to be discussed within the B2/EWA Interagency Team. If necessary, disputes will be elevated to the Water Operations Management Team for final resolution.

B(2)/EWA Assets

The Management Agencies have concluded that this was an EWA action. Therefore, EWA power credits were reduced by the amount of power provided to Western Area Power Administration as reimbursement for foregone power generation due to this action.



Carl A. Torgersen, Chief
SWP Operations Control Office
Division of Operations and Maintenance
12/07/02
Date



Chester V. Bowling
Operations Manager
Central Valley Operations
Bureau of Reclamation
1/3/03
Date

Management Agency Authorization provided by:

Department of Fish and Game – Perry Herrgesell
U.S. Fish and Wildlife Services – Michael Thabault
National Marine Fisheries Services – Michael Aceituno

cc: (See attached list.)

Patrick Wright, Director
CALFED
1416 Ninth Street, 11th Floor
Sacramento, California 95814

Mr. John Davis, Deputy Regional Director
Mid-Pacific Regional Office
Bureau of Reclamation
U. S. Department of the Interior
2800 Cottage Way, MP-100
Sacramento, California 95825-1898

Diana Jacobs, Ph.D.
Deputy Director
California Department of Fish and Game
1416 Ninth Street, Room 1205
Sacramento, California 95814

Mr. James Lecky
Assistant Regional Administrator
Southwest Region
U. S. National Marine Fisheries Service
650 Capitol Mall, Suite 8-300
Sacramento, California 95814-4706

Mr. Michael Aceituno
National Marine Fisheries Service
Protected Resources Division
650 Capitol Mall, Suite 8-300
Sacramento, California 95814

Perry Herrgesell
Department of Fish and Game
4001 North Wilson Way
Stockton, California
95206-2486

Mr. Michael Thabault
U.S. Fish and Wildlife Service
2800 Cottage Way, W-2605
Sacramento, California 95825

Mr. Wayne White
Field Supervisor
Ecological Services
U.S. Fish and Wildlife Service
2800 Cottage Way
Sacramento, California 95825